

From: [McInnis, Amanda](#)
To: [Tina Laidlaw/MO/R8/USEPA/US@EPA](#)
Subject: Clark's slides on algae production in the Clark Fork and Yellowstone Rivers
Date: 06/20/2012 01:45 PM
Attachments: [3138_001.pdf](#)
[3140_001.pdf](#)

Tina—

You had asked me to send Clark's slides on the algae production changes with improvements in plant performance. I think the point that Dave was trying to make here is that based on river modeling we can see whether pushing a discharger to the next level of treatment affects algal production in a meaningful way. As you can see, its different for different rivers and for different nutrients--nitrogen and phosphorus are not always both limiting.

There are a number of possible ways we could use this information to inform our decisions. I kind of like the idea of using the Maine indicator-based approach within the variance—where we would look at the other indicators first to see if there truly is a problem in the water body (rather than just defining the nutrients themselves as the problem), if there is a problem, then we apply the charts and decide if a discharger should go lower—if there is an X% drop in algae for instance.

I also attached the Montana code for non-significant changes in water quality just as a reference point.

Amanda